

ORIGINS TECHNOLOGY SUMMARY

REQUIRED CAPABILITY		PERFORMANCE GOALS					TECHNOLOGY OPTIONS							
DESCRIPTION	PRIORITY	METRICS	UNITS	SIM	NGST	PF	DESCRIPTION	SOA	LIMIT	DEMO?				
Instrument Cryocooler	High-Med	Temperature Heat Load Power Vibration Lifetime	K mW W/W mN yrs		6 - 10? ~2+	6 - 10? ~1	He Turbo-Brayton (II) Hydrogen J-T Sorption (I) He Stirling J-T Hybrid (IV) Solid Hydrogen (I) Magnetic (ADR) (II) LHe (0)	Temperature Heat Load Power Vibration Temperature Heat Load Power Vibration Temperature Heat Load Power Vibration Temperature Heat Load Power Vibration Temperature Heat Load Power Vibration	8 40 @ 8K ? (poor eff below 20 K) low	10 scalable very low	5 mod to high	<7 <8mW 0 0	vap press	WIRE

Cryocoolers